

Claims

1. An anabolic composition comprising:

5           a) at least one glycosaminoglycan, proteoglycan aggregate complex of hyaluronic acid, extracellular matrix, protein and chondroitin, extracellular matrix compound in an amount effective in the damaged tissue as an anti-neo-inflammatory and anti-neo-angiogenetic agent;

10          b) about one to three grams of at least one polar surface active lipid selected from the group consisting of phosphatidic acid, phosphatidylethanolamine, lecithin, phosphatidylserine, phosphatidylinositol, 2-lysolecithin, plamalogen, choline plasmalogen, phostidylglycerol, diphosphatidylglycerol, sphingomyelin, and any combination of 2, 3, 4, 5, 6, 7, 8, 9, 10, or 11 of said polar active surface lipids;

15          c) a plurality of enantiomerically pure L-amino acids and glycine of about 9 to 25 grams in molar ratios of human tissue;

20          d) a component selected from the group consisting of Polyoxyethylene Sorbitan Monooleate (TWEEN 80), Sorbitan monooleate (SPAN 80), grape seed extract, grape extract, and combinations thereof; and

25          e) vitamins, minerals or trace elements selected from the group consisting of Vitamin B12, Vitamin E, selenium, zinc, and combinations thereof.

2. The composition according to claim 1, further comprising a compound generally accepted as safe (GRAS) selected from the group consisting of aspartame perfluorocarbon resins, perfluorocarbon cured elastomers. [alpha]-Amylase enzyme preparation from *Bacillus stearothermophilus*, benzoic acid, bromelain, catalase (bovine liver), lactic acid, linoleic acid, potassium acid tartrate, propionic acid, stearic acid, tartaric acid, diacetyl tartaric acid esters of mono- and diglycerides, ammonium

bicarbonate, ammonium carbonate, ammonium chloride, ammonium hydroxide, ammonium citrate, dibasic, ammonium phosphate, monobasic; ammonium phosphate, dibasic; bacterially-derived carbohydrase enzyme preparation; bacterially-derived protease enzyme preparation; bentonite; benzoyl peroxide; n-Butane and iso-butane; Calcium glycerophosphate; Calcium lactate; Calcium pantothenate; Calcium propionate; Calcium stearate; Carbon dioxide; Beta-carotene; Cellulase enzyme preparation derived from *Trichoderma longibrachiatum*; Clove and its derivatives; Cocoa butter substitute; Copper gluconate; Copper sulfate; L-Cysteine; L-Cysteine monohydrochloride; Dextrin; Diacetyl; Enzyme-modified fats; Ethyl alcohol; Ficin; Glucono delta-lactone; Corn gluten; Wheat gluten; Glyceryl monooleate; Glyceryl behenate; Glyceryl palmitostearate; Helium; Inositol; Insoluble glucose isomerase enzyme preparations; Isopropyl citrate; Animal lipase; Magnesium carbonate; Magnesium chloride; Magnesium hydroxide; Magnesium oxide; Magnesium phosphate; Magnesium stearate; Magnesium sulfate; Malt; Malt syrup (malt extract); Manganese chloride; Manganese citrate; Manganese gluconate; Manganese sulfate; Microparticulated protein product; Mono- and diglycerides; Monosodium phosphate derivatives of mono- and diglycerides; Niacin; Niacinamide; Nickel; Nitrogen; Nitrous oxide; Peptones; Pancreatin; Papain; Pectins; Pepsin; Potassium bicarbonate; Potassium carbonate; Potassium chloride; Potassium hydroxide; Potassium lactate; Propane; Pyridoxine hydrochloride; Rennet (animal-derived) and chymosin preparation (fermentation-derived); Riboflavin; Riboflavin-5'-phosphate (sodium); Sodium benzoate; Sodium carbonate; Sodium hydroxide; Sodium hypophosphite; Sodium lactate; Sodium metasilicate; Sodium propionate; Sodium sesquicarbonate; Sodium tartrate; Sodium potassium tartrate; Starter distillate; Stearyl citrate; Thiamine hydrochloride; Thiamine mononitrate; [alpha]-Tocopherols; Triacetin; Tributyrin; Triethyl citrate; Trypsin; Urease enzyme preparation from *Lactobacillus fermentum*; Vitamin A; Vitamin B12; Candelilla wax; Carnauba wax; Bakers yeast extract; Zein; Sulfamic acid; Clay (kaolin); Ferric oxide; Iron oxides; Japan wax; Tall oil; Alfalfa; Allspice; Almond, bitter (free from prussic acid); Ambrette; Angelica root; Angelica seed or stem; Angostura; Anise; Asafetida; Balm; Balsam of Peru; Basil; Bay leaves; Bay; Bergamot (bergamot orange); Bois de rose; Cacao; Camomile (chamomile); Capsicum; Caraway; Cardamom seed (cardamon); Carob bean; Carrot; Cascarilla bark;

Cassia bark, Chinese; Cassia bark, Padang or Batavia; Cassia bark, Saigon; Celery seed; Cherry, wild, bark; Chervil; Chicory; Cinnamon bark, Ceylon; Cinnamon bark, Chinese; Cinnamon bark, Saigon; Cinnamon leaf, Ceylon; Cinnamon leaf, Chinese; Cinnamon leaf, Saigon; Citronella; Citrus peels; Clary (clary sage); Clove bud; Clove leaf; Clove stem; Clover; Coca ; Coffee; Cola nut; Coriander; Corn silk; Cumin (cummin); Curacao orange peel; Cusparia bark; Dandelion; Dandelion root; Dill; Dog grass (quackgrass, triticum); Elder flowers; Estragole ; Estragon (tarragon); Fennel, sweet; Fenugreek; Galanga (galangal); Garlic; Geranium; Geranium, East IndianGeranium, rose; Ginger; Glycyrrhiza; Glycyrrhizin, ammoniated; Grapefruit; Guava; Hickory bark; Horehound (hoarhound); Hops; Horsemint; Hyssop; Immortelle; Jasmine; Juniper (berries); Kola nut; Laurel berries; Laurel leaves; Lavender; Lavender, spike; Lavandin; Lemon; Lemon balm (see balm).; Lemon grass; Lemon peel; Licorice; Lime; Linden flowers; Locust beanLupulin; Mace; Malt (extract); Mandarin; Marjoram, sweet; Mate 1; Menthol; Menthyl acetate; Molasses (extract); Mustard; Naringin; Neroli, bigarade; Nutmeg; Onion; Orange, bitter, flowers; Orange, bitter, peel; Orange leaf; Orange, sweet; Orange, sweet, flowers; Orange, sweet, peel; Origanum; Palmarosa; Paprika; Parsley; Pepper, black; Pepper, white; PeppermintPeruvian balsam; Petitgrain; Petitgrain lemon; Petitgrain mandarin or tangerine; Pimenta; Pimenta leaf; Pipsissewa leaves; Pomegranate; Prickly ash bark; Rose absolute; Rosa; Rose; Rose buds; Rose flowers; Rose fruit (hips); Rose geranium; Rose leaves; Rosemary; Rue; Saffron; Sage; St. John's bread; Savory, summer; Savory, winter; Schinus molle; Sloe berries; Spearmint; Spike lavender; Tamarind; Tangerine; Tannic acid; Tarragon; Tea; Thyme; Triticum; Tuberose; Turmeric; Vanilla; Violet flowers; Violet leaves; Violet leaves absolute; Wild cherry bark; Ylang-ylang; and; Zedoary bark, or any combination of said compounds.

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3. The composition according to claim 1, further comprising a flavorant.

4. The composition according to claim 3, wherein said flavorant is a fruit juice.

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5. The composition according to claim 4, wherein said fruit juice is tomato juice.

6. The composition according to claim 1, wherein said amino acids are L-Leucine, L-Proline, L-Arginine, L-Valine, L-Aspartic Acid, L-Isoleucine, Glycine, L-Threonine, L-Tyrosine, L-Phenylalanine, L-Serine, L-Histidine, L-Alanine, L-Cystine, L-Tryptophan, L-Methionine, L-Glutamine, L-Glutamic Acid, L-Taurine, and L-Carnitine.

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7. The composition according to claim 1, wherein said component (c) comprises Corn Syrup Solids, High Oleic Safflower Oil, Refined Vegetable Oil, L-Lysine L-Glutamate, Calcium Phosphate Dibasic, and less than 2% (by weight) of each of the following: L-Leucine, Tripotassium Citrate, L-Proline, L-Arginine, L-Valine, L-Aspartic Acid, L-Isoleucine, Glycine, L-Threonine, L-Tyrosine, L-Phenylalanine, L-Serine, L-Histidine, L-Alanine, Mono and Diglycerides, Sodium Chloride, L-Cystine, L-Tryptophan, Magnesium Acetate, L-Methionine, Potassium Chloride, Diacetyl Tartaric Acid Esters of Monoglycerides, L-Glutamine, Choline Bitartrate, L-Glutamic Acid, M-Inositol, L-Ascorbic Acid, Soy Lecithin, Tricalcium Phosphate, Ferrous Sulfate, Zinc Sulfate, L-Carnitine, Niacinamide, DL-alpha Tocopheryl Acetate, Calcium D-Pantothenate, Cupric Sulfate, Manganese Sulfate, Pyridoxine Hydrochloride, Vitamin A Acetate, Riboflavin, Thiamine Chloride Hydrochloride, Potassium Iodide, Chromium Sulfate, Phylloquinone, Sodium Molybdate, Folic Acid, Sodium Hydrogen Selenite, D-Biotin, Vitamin D<sub>3</sub> and Cyanocobalamin.

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8. The composition according to claim 7, wherein said composition further comprises taurine.